SUPPLEMENTARY METHODS:

MRI tumor volume quantification:

Animals were anesthetized with 1.5%–2% isoflurane (IsoFlo; Abbott) in 100% oxygen. Both cardiac and respiratory gating was applied to minimize motion effects. Acquisition of the magnetic resonance signal was synchronized with the cardiac and respiratory cycles. MRI protocols optimized for assessing pulmonary parenchyma and vessels in normal mice were adapted for operation at 7 Tesla (BioSpec; Bruker BioSpin). Tumor volume quantifications were performed using the 3D-Slicer software as described previously (1). Tumor volumes of some of untreated TL and TD mice have been used from a previous study (2).

Tumor induction in Kras driven mouse models

$Kras^{G12D}$ and $Kras^{G12D}$; $P53^{L/L}$ mice were maintained in mixed (C57Bl/6, FVB, and S129) background and given adeno virus expressing Cre recombinase ($5x10^6$ titer) intranasally at 5 weeks of age for induction of recombination and tumor formation.

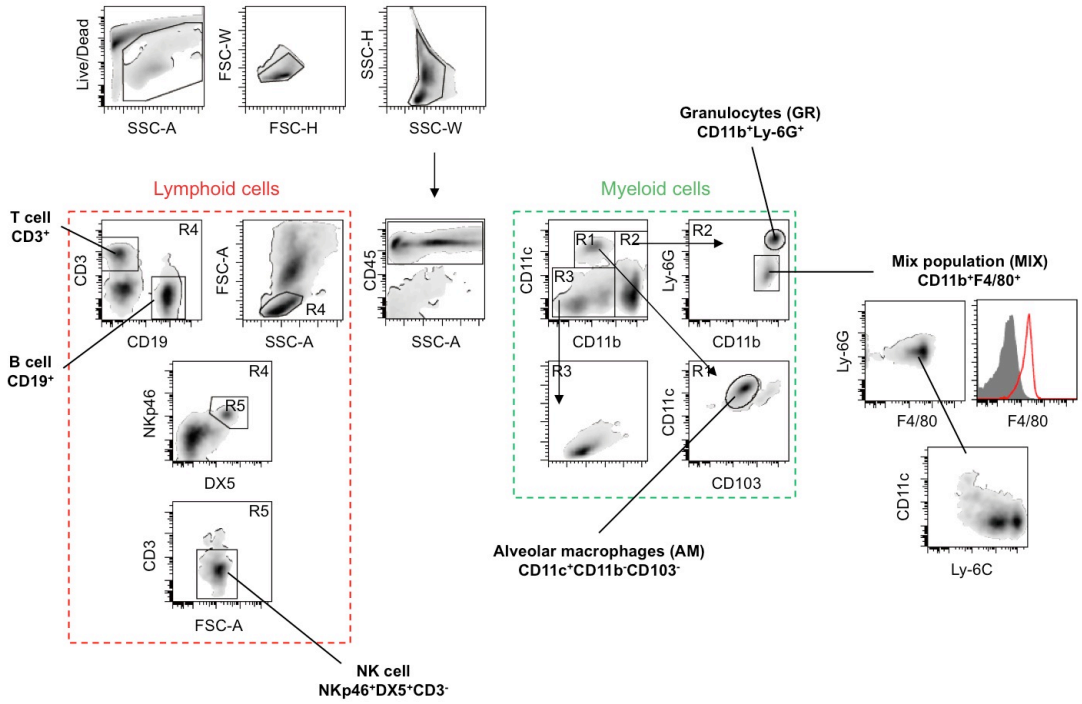
Antibody list for mouse

Antigen	Clone	Antigen	Clone
CD45	30-F11	PD-1	29F.1A12
CD3ε	145-2C11	Tim-3	RMT3-23
CD4	RM4-5	LAG-3	631501
CD8	53-6.7	PD-L1	10F.9G2
CD19	6D5	CD25	PC61
DX5	DX5	FasL	MFL3
NKp46	29A1.4	ICOS	C398.4A
CD11c	N418	CXCR3	CXCR3-173
CD11b	M1/70	FOXP3	FJK-16s
Ly6G	1A8	CTLA-4	UC10-4B9
Ly6C	HK1.4	IFNg	XMG1.2
F4/80	BM8	IL-2	JES6-5H4
CD103	2E7	NKG2D	CX5
CD44	IM7	DNAM-1	10E5
CD62L	MEL-14		

Antibody list for human

Antigen	Clone	Antigen	Clone
PD-L1	30-F11	EGFR	AY13

Gating method for flow cytometry analysis:



After gating live, single $CD45^+$ cells from total lung cells, cells were differentiated into 3 regions: R1, R2, and R3, for identification of myeloid cell populations by CD11c and CD11b. R1 included $CD11c^+CD11b^-CD103^-$ alveolar macrophages (AM). R2 contained 2 clusters; $CD11b^+Ly\text{-}6G^+$ granulocytes (GR) and the other population expressing F4/80. This $CD11b^+F4/80^+$ population was consisted of the different cell types based on Ly-6C and CD11c expression, so they were classified as mixed population (MIX) R3 included lymphoid cells. For lymphoid cell analysis, we used another gating (R4) based on FSC and SSC. R4 contained $CD3^+$ (T cell), $CD19^+$ (B cell) and $DX5^+NKp46^+CD3^-$ (NK cell)

SUPPLEMENTARY REFERENCES :

1. Chen Z, Cheng K, Walton Z, Wang Y, Ebi H, Shimamura T, et al. A murine lung cancer co-clinical trial identifies genetic modifiers of therapeutic response. Nature. 2012;483:613-7.
2. Zhou W, Ercan D, Chen L, Yun CH, Li D, Capelletti M, et al. Novel mutant-selective EGFR kinase inhibitors against EGFR T790M. Nature. 2009;462:1070-4.